CLAIMS

1. A coil, comprising:

a core which has two flange portions and is made of a magnetic material, and

a winding portion made up of a plurality of layers of conductor wound around the core between the two flange portions of the core,

characterized in that the winding portion is divided into a plurality of sections between the two flange portions, one layer of conductor is wound from one end to the other end in each section, and then layers of conductor are wound in alternately reversed directions to form a multilayer winding portion by solenoid winding.

2. The coil according to claim 1, characterized in that the winding portion is formed by winding the conductor such that a boundary surface between adjacent sections inclines to the flange portion of a winding start and the boundary surface of an upper layer is closer to the flange portion than the boundary surface of a lower layer.

3. The coil according to claim 1 or 2, characterized in that the winding portion is formed by winding the conductor such that in each end section, at least a portion near an upper layer of an end face facing the flange portion is apart from the flange portion so as to be farther from the flange portion than a lower layer of the end face.

4. The coil according to any one of claims 1 to 3, characterized in that the flange portion includes a main portion and a flexible member which is detachably attached to the main portion and shaped like letter C in cross section.

5. The coil according to claim 4, characterized by further comprising a binding portion on an outer surface of the flexible member, the binding portion being bound with a portion near an end of the conductor.

6. The coil according to any one of claims 1 to 5, characterized in that the flange portion is provided on each end of the core.

7. An antenna characterized by using the coil according to any one of claims 1 to 6.

8. A transformer characterized by using the coil according to any one of claims 1 to 6.